

Nutrition For Life

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Vocabulary

- **Nutrients**- substances found in food that make the body grow, supply energy and repair itself.
- **Calories**- units of heat that measure energy used by the body and the energy that foods supply to the body
- **Allergies**- body's immune system reacts to substances in food.
- **Intolerances**- Negative reaction to food caused by a metabolic problem, such as not being able to digest food.

Carbohydrates (4 cals/gram)

- Starches and sugars present in food (C-H-O)
- The major form of energy for the body
- Stores roughly a 2-3 hour supply for *vigorous* exercise
- Transported as glucose stored as glycogen
- Mass amounts stored as fat
- Glycemic Index

Carbohydrates cont'd

- **Simple-** *sugars* found in fruit, milk, soda, candy bars
- **Complex-** *starches* found in whole grains, nuts, potatoes, pasta
- **Fiber-** indigestible carb in grains, fruits, nuts used for moving waste through the digestive system



Fat (9 cals/gram)

- Large storage capacity in the form Triglycerides
- **Saturated**- Holds hydrogen atoms. Beef, pork, egg yolks, dairy.
- **Unsaturated**- Olive, canola, corn, soybean oils.
- Transport vitamins A,D,E,K for growth and healthy skin
- Saturated fats linked directly to high cholesterol levels

Protein (4 cal/gram)

- Build, maintain, and **repair** cells and tissues
- Produces hormones, enzymes, and antibodies
- Body can manufacture 11 out of 20 amino acids that make up proteins. The other 9 are called *essential amino acids* and must be taken in from foods.
- Increased role through glycogen depletion
- **Complete**- Contain amounts of ALL 9 essential AA. (Fish, meat, poultry, eggs)
- **Incomplete**- Lack one of the essential AA. (Rice, peanut butter, bread)

Vitamins

- Regulate body processes including digestion, absorption, and metabolism *of other nutrients*
- **Water Soluble**- transported in water, not stored, and replenished in foods (B₆, B₁₂, C)
- **Fat Soluble**- stored in body and excessive build up can be toxic (ADEK)



Minerals

- Body cannot manufacture but needed for bones, teeth, O₂ transport (Calcium, Iron, Magnesium)



Water

- Transports nutrients and wastes
- Aides in digestion
- 64 ounces average



Influences on Food Choice

- **Emotions**

- Stress, frustration, depression, boredom, achievement, failures

- **Environment**

- Family, friends, peers- shaped as you grow from childhood

- **Cultural Background**

- Pasta, bread, pizza, wine are often associated with Italians

- **Cost/Accessibility**

- Microwavable, prepared quick, homemade,

- **Advertising**

- Health messages delivered through the media



Moderations

- No more than 30% of daily calories come from fat
 - 60-20-20 ratio
- Sugars = (-ose) ie. glucose, maltose
- Processed foods contain high amounts of *sodium*

Eating Disorders

- **Anorexia Nervosa**- fear of becoming obese thus starving the body
- Found most in young woman
- Genetic findings of family history
- Low BP, menstrual irregularities

Eating Disorders cont'd

- **Bulimia Nervosa**- Binging and purging to clear the digestive tract
- Eat large amounts of food followed by vomiting
- Dehydration, destroys teeth enamel, esophagus damage
- Treatments are psychological/physical

Nutrition Facts

Serving Size ½ cup (114g)
Servings Per Container 4

Amount Per Serving

Calories 90 Calories from Fat 30

% Daily Value*

Total Fat 3g **5%**

Saturated Fat 0g **0%**

Cholesterol 0mg **0%**

Sodium 300mg **13%**

Total Carbohydrate 13g **4%**

Dietary Fiber 3g **12%**

Sugars 3g

Protein 3g

Vitamin A 80% • Vitamin C 60%

Calcium 4% • Iron 4%

*Percent Daily Values are based on a 2,000 calorie diet.
Your daily values may be higher or lower depending on
your caloric needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Fats (grams)

Carbohydrates (grams)

Protein (grams)

Calories from Fats

Calories from Carbohydrates

Calories from Proteins

% of Fats

% of Carbohydrates

% of Proteins



Fad Diets

- **Short-term weight loss strategies that are popular**
 - Restrict food/nutrient intake
- **Atkins Diet**- limit carbs to burn fat
 - Low energy
- **South Beach Diet**- limit sugar & refined starches
- **Liquid Diet**- All liquids/low caloric intake
 - Low in carbohydrates high in protein
- **Pills**- suppress appetite
 - Dehydrate the body, fast heart beat, drowsiness



Maintaining Weight

- Small amounts of fat increase calorie counts drastically
- Adding 100 calories/day would add 10lbs in a year



Weight Related Risks

- **Overweight**

- Fat strains skeletal system and forces heart and lungs to work harder
- High cholesterol, blood pressure, type II diabetes
- Eat nutrient dense foods (high in nutrients compared to calorie values)

- **Underweight**

- Osteoporosis, low blood pressure
- May lead to fatigue and lack of energy because there are no fat reserves